

Satellite® 1905 Series Resource Guide



NOTE: Keep this guide in a convenient place to access important information about your computer.

If you need assistance, use one of the following:

- ❖ VirtualTech™
<http://virtualtech.toshiba.com>
- ❖ InTouch® Center
Calling within the United States (800) 457-7777
Calling from outside the United States (949) 859-4273

Please fill in for your reference and future use:

Model name _____

Part number _____

Serial number _____

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Welcome to the world of powerful and portable multimedia computers! With your new Toshiba notebook computer, your access to information can accompany you wherever you go.

You will find that the Microsoft® Windows® XP Professional or XP Home operating system is already installed on your computer. It offers exciting features and easy Internet access.

This guide

This guide offers important information about your computer, including solutions to the most common problems, and features and specifications.

For more detailed information, descriptions of other features and more extensive troubleshooting guidelines, see the electronic user's guide preinstalled on your system. It is also available on the Web at pcsupport.toshiba.com.

Safety icons

This guide contains safety instructions that must be observed in order to avoid potential hazards that could result in personal injuries, damage to your equipment, or loss of data. These safety cautions have been classified according to the seriousness of the risk, and the icons highlight these instructions as follows:



DANGER: This icon indicates the existence of a hazard that could result in death or serious bodily injury if the safety instruction is not observed.



WARNING: This icon indicates the existence of a hazard that could result in bodily injury if the safety instruction is not observed.



CAUTION: This icon indicates the existence of a hazard that could result in damage to equipment or property if the safety instruction is not observed.



NOTE: This icon indicates information that relates to the safe operation of the equipment or related items.

Other icons used

Additional icons highlight other helpful or educational information:



HINT: This icon denotes helpful hints and tips.

Other documentation

Your computer comes with all or some of the following documentation in addition to this resource guide:

- ❖ An electronic version of the user's guide. Look for the user's guide icon on your desktop or in the DOCS folder on the C: drive.
- ❖ Guides for other programs that may come preinstalled on your computer or that are available for installation on your Recovery CDs.
- ❖ *Toshiba accessories information*, which lists accessories available from Toshiba and explains how to order them.
- ❖ The Microsoft® Windows® operating system documentation which explains the features of the operating system.

Setting up your computer and getting started

Strain and stress injuries are becoming more common as people spend more time using their computers. With a little care and proper use of the equipment, you can work comfortably throughout the day.



WARNING: Using the computer keyboard incorrectly can result in discomfort and possible injury. If your hands, wrists, and/or arms bother you while typing, stop using the computer and rest. If the discomfort persists, consult a physician.

For more information, consult books on ergonomics, repetitive-strain injury, and repetitive-stress syndrome.

Placement of the computer

Proper placement of the computer and external devices is important to avoid stress-related injuries. Consider the following when placing your computer.

- ❖ Place the computer on a flat surface at a comfortable height and distance. You should be able to type without twisting your torso or neck, and look at the screen without slouching.
- ❖ If you are using an external monitor, the top of the display should be no higher than eye level.
- ❖ If you use a paper holder, set it at about the same height and distance as the screen.

Seating and posture

When using your computer, maintain good posture with your body relaxed and your weight distributed evenly. Proper seating is a primary factor in reducing work strain.

Precautions

Your notebook computer is designed to provide optimum safety and ease of use, and to withstand the rigors of travel. You should observe certain precautions to further reduce the risk of personal injury or damage to the computer.



CAUTION: Never apply heavy pressure to the computer or subject it to sharp impacts. Excessive pressure or impact can damage computer components or otherwise cause your computer to malfunction.



CAUTION: Some PC Cards become hot with prolonged use. If two cards are installed, both can become hot even if only one is being used. Overheating of a PC Card can result in errors or instability in its operation.

Be careful when you remove a PC Card that has been used for lengthy periods of time.

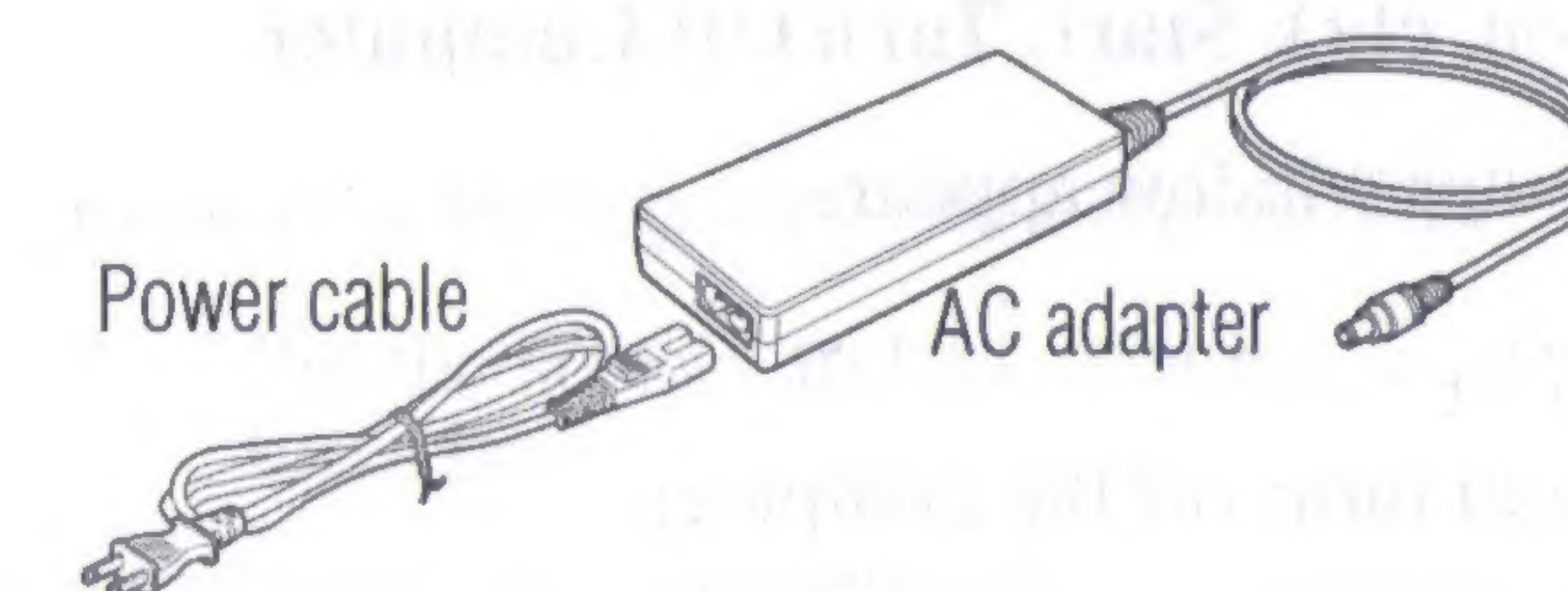
Connecting the AC adapter

The AC adapter allows you to power the computer from an external AC power source and to charge the computer's batteries.



CAUTION: Using the wrong AC adapter could damage your computer. Toshiba assumes no liability for any damage in such cases.

Never pull directly on the power cable to unplug it. Hold the power plug when removing the cable from the outlet.



Power Cable and AC Adapter



DANGER: Damaged power cables can cause fire or electric shock. Never modify, forcibly bend, place heavy objects on top of, or apply heat to the power cable.

If the power cable becomes damaged or the plug overheats, discontinue use. There is a risk of electric shock.

Never remove the power plug from the outlet with wet hands. Doing so may cause an electric shock.

Connecting a printer

Before you can connect a printer, you need to know whether it uses a serial or a parallel interface. Check the printer's documentation. If the printer can be switched between serial and parallel mode, choose parallel because it is faster.

You also need a suitable printer cable, which may come with your printer. Otherwise, you can purchase one from a computer or electronics store.



NOTE: If your printer is ECP- or IEEE-compliant, make sure your printer cable is an IEEE 1284 cable.

Installing additional memory (optional)

Your computer comes with enough memory to run most of today's popular applications. You may want to increase the computer's memory if you use complex software or process large amounts of data.

There are two memory slots. Only one slot is available for you to add an additional memory module.

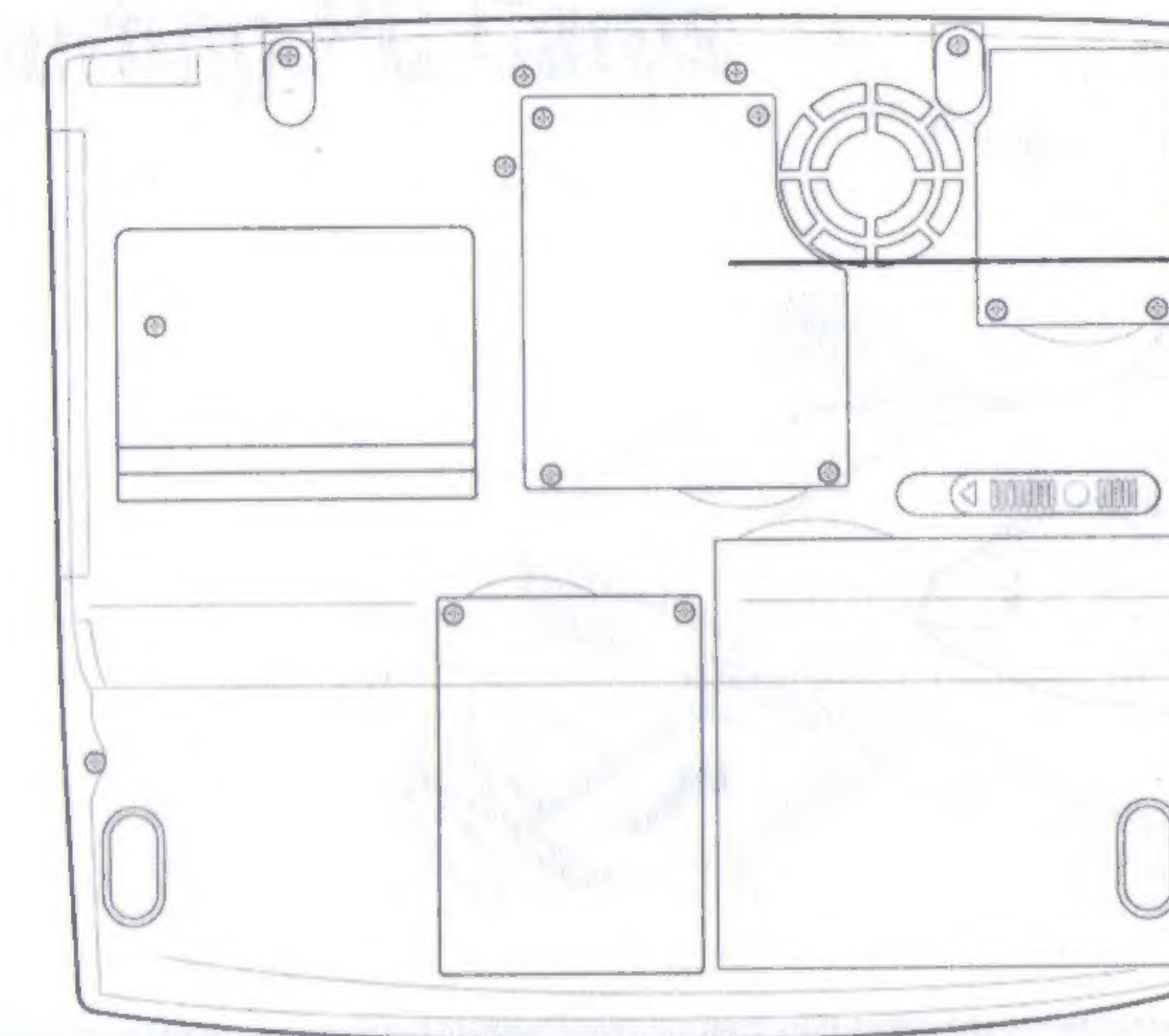
You need a standard Phillips no. 1 screwdriver to install a memory module.



CAUTION: To avoid damaging the computer's screws, use a standard Phillips no. 1 screwdriver that is in good condition.

If the computer is on, begin at step 1; otherwise, skip to step 3.

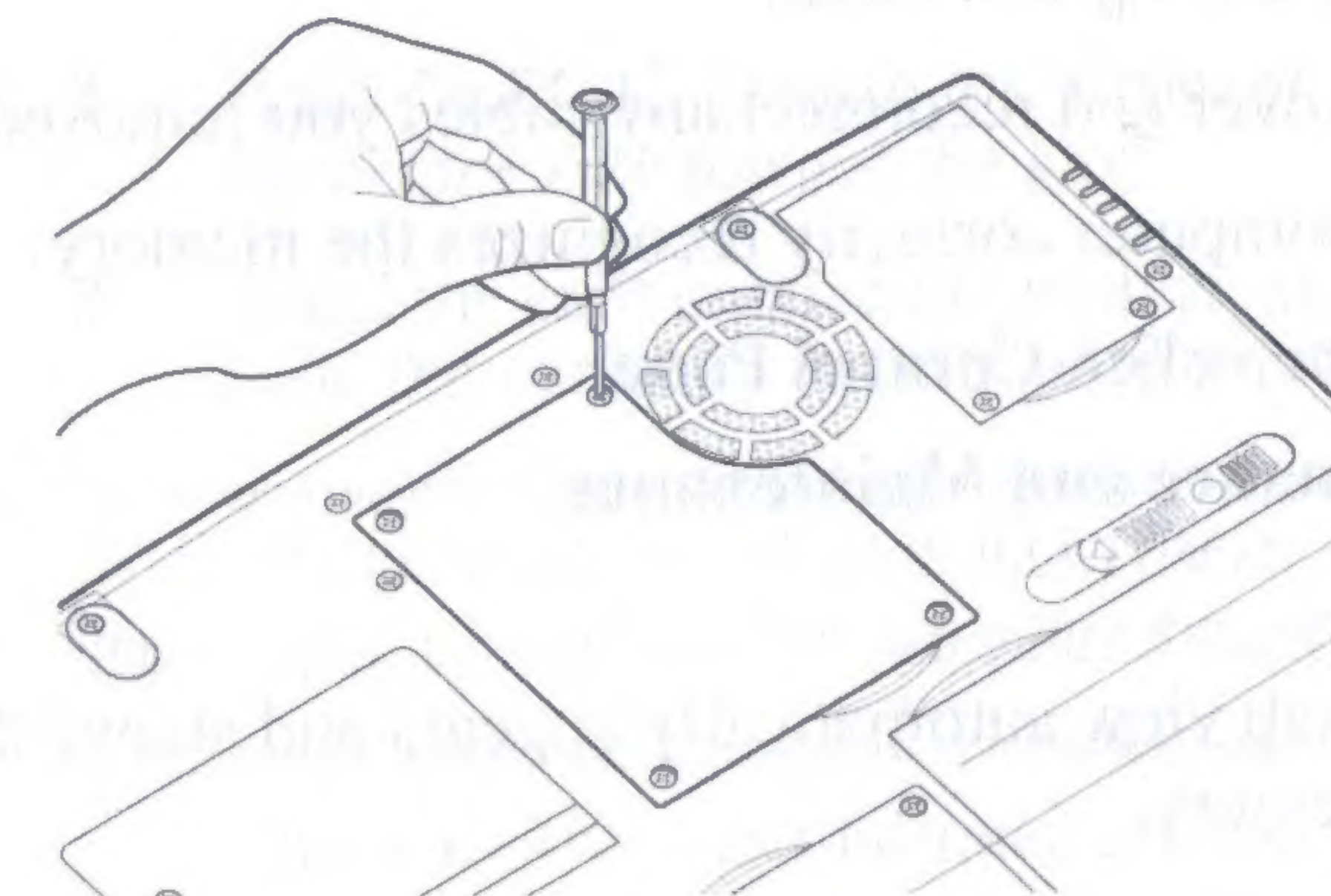
- 1 If the computer is on, click **Start**, **Turn Off Computer**.
The Turn off computer window appears.
- 2 Click **Turn Off**.
The operating system turns off the computer.
- 3 Unplug and remove any cables connected to the computer.
- 4 Remove the battery.
- 5 Close the display panel and turn the computer upside down to locate the expansion memory slot cover to the empty memory slot.



Expansion
memory
slot cover

Base of the computer

- 6 Using a standard Phillips no. 1 screwdriver, unscrew the two screws that secure the memory slot cover, then remove the memory slot cover.



Removing the memory slot cover screws

- 7 Put the screws and the cover in a safe place so that you can retrieve them later.

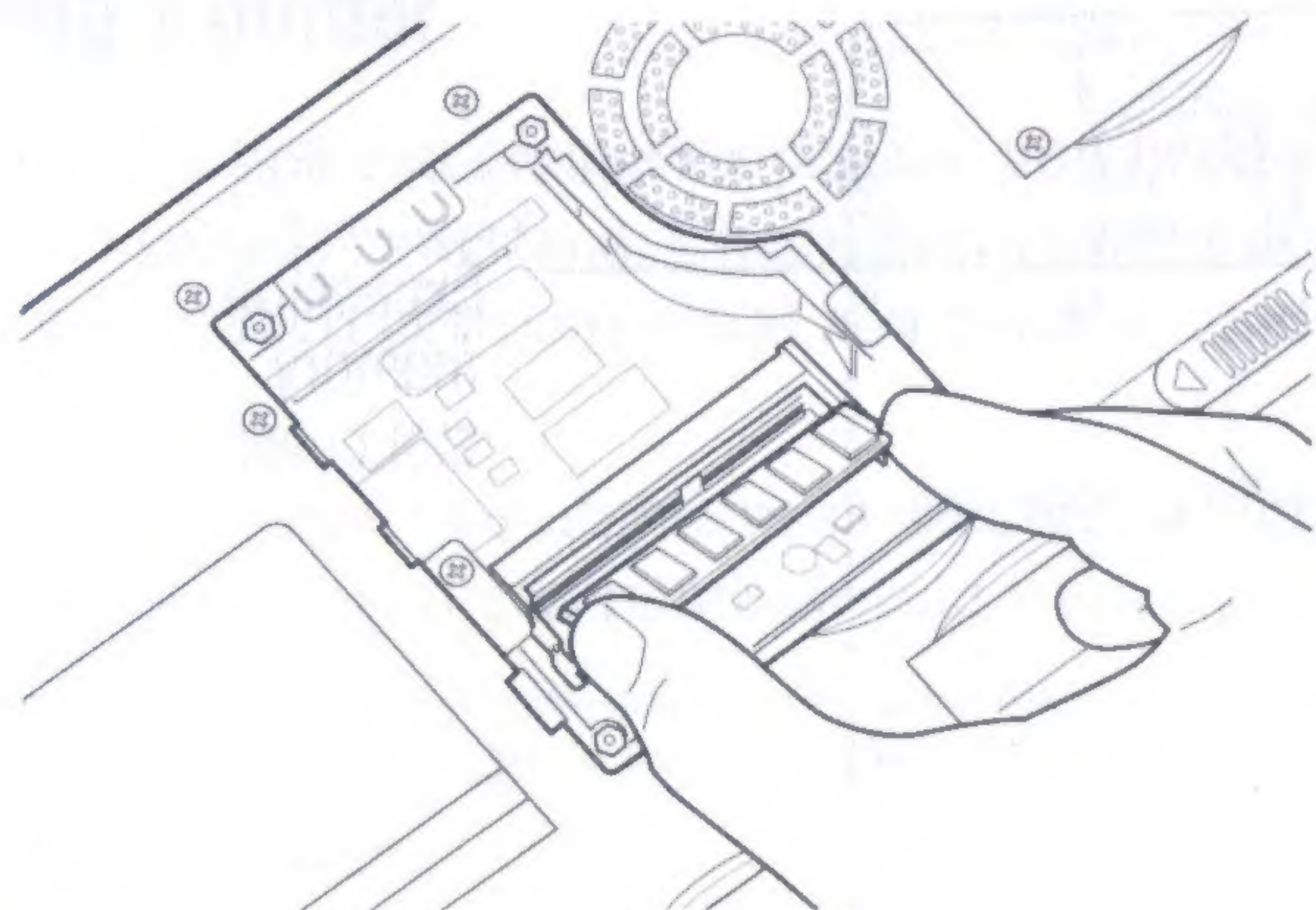


CAUTION: Static electricity can damage the memory module. Before you handle the module, touch a grounded metal surface to discharge any static electricity you may have built up.

To avoid damaging the memory module, be careful not to touch its gold connector bar (on the side you insert into the computer).

- 8 Remove the new memory module from its antistatic packaging.
- 9 Holding the memory module by its edges so that the gold connector bar faces the slot, fit the module into the socket.
- 10 Gently press down on the memory module connector until the clips snap into place.

Do not force the module into position. The memory module should be level when secured in place.



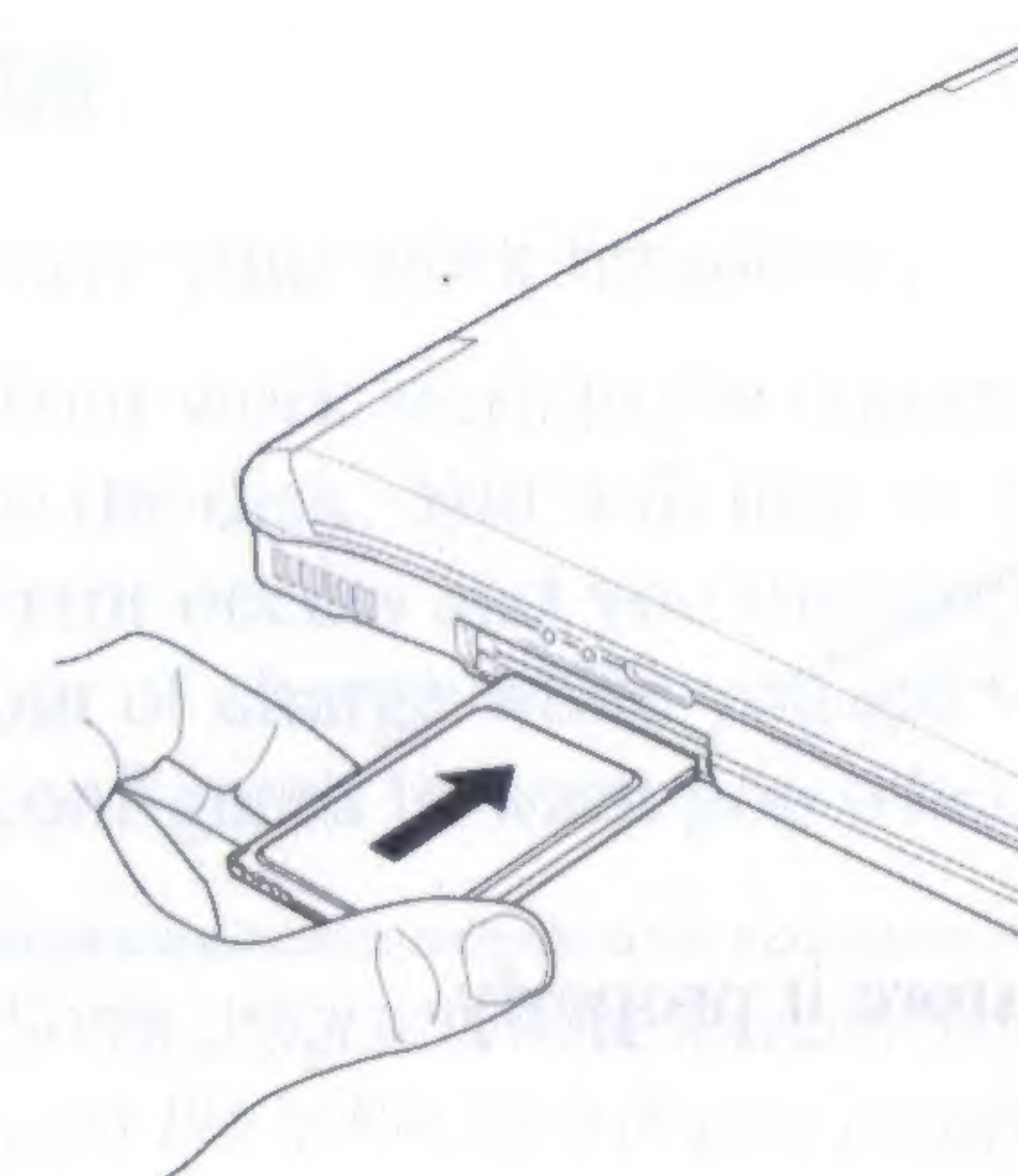
Inserting the memory module



CAUTION: Avoid touching the connectors on the memory module or on the computer. Grease or dust on the connectors may cause memory access problems.

- 11 Replace the memory slot cover.
- 12 Replace the screws and tighten them.
- 13 Turn the computer over and reconnect any cables you removed.
- 14 To verify that the computer correctly recognizes the memory:
 - ❖ Click **Start**, then click **Control Panel**
 - ❖ Click **Performance and Maintenance**.
 - ❖ Click **System**.
 - ❖ The **General** tab view automatically appears and shows the recognized memory.
- 15 If the computer does not recognize the memory, turn off the computer, remove the memory slot cover, and make sure the memory module is seated properly, as described in step 10.

Inserting PC Cards



Inserting a PC Card

- 1 If your PC Card does not support hot swapping, save your data and turn off the computer before inserting the PC Card. For more information, see Hot swapping in the electronic user's guide.
- 2 Hold the PC Card with the arrow or main label side up and the connector side toward the slot.
- 3 Align the card connectors with an available PC Card slot and carefully slide the card into the slot until it locks into place.



NOTE: If you have a Type III card, insert the connector into the lower slot. If you have a Type II card, you can insert it into either the upper or the lower slot.

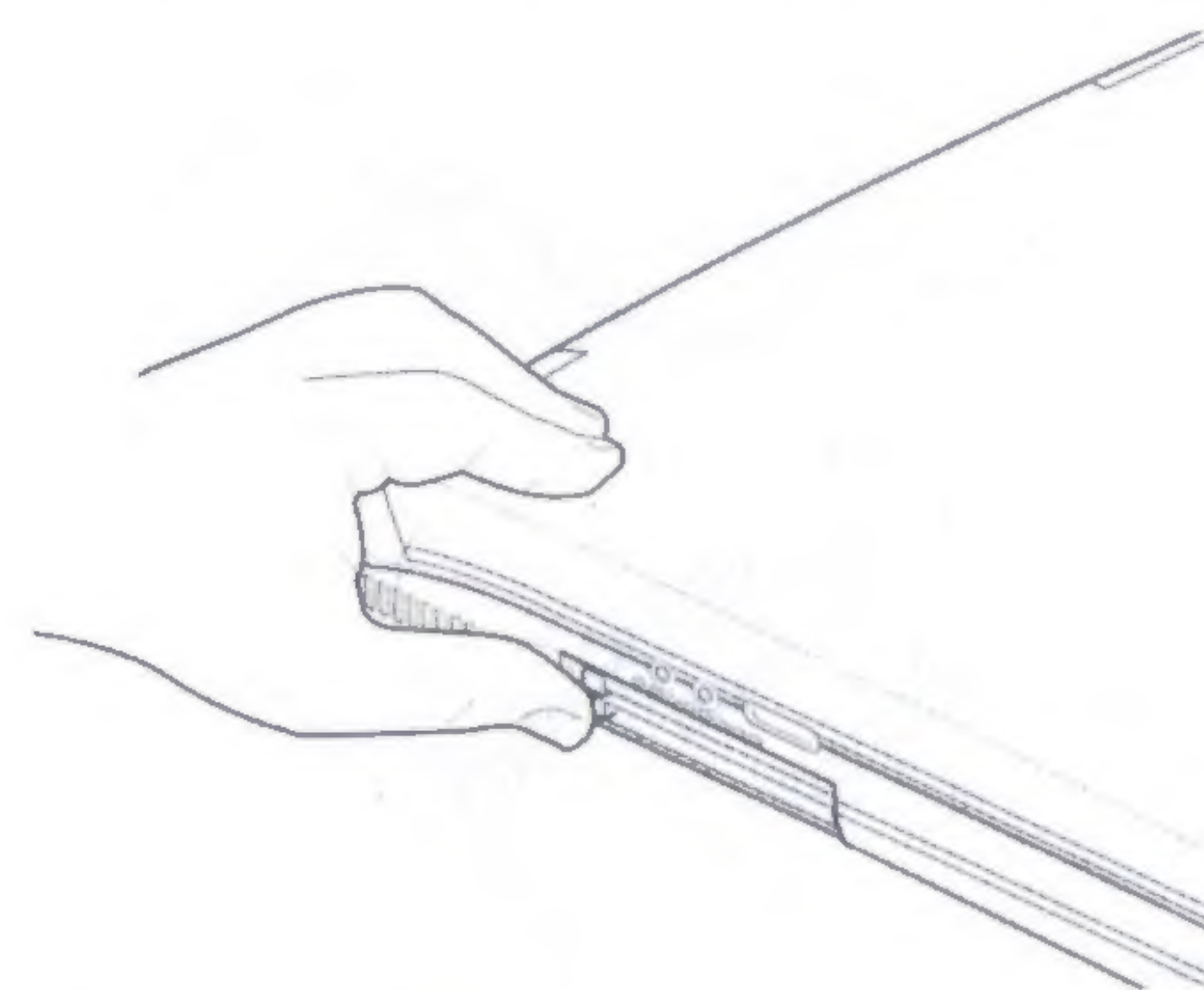
There are two eject buttons, one per slot.



CAUTION: To avoid damaging the PC Card or the computer, do not force the card into the PC Card slot.

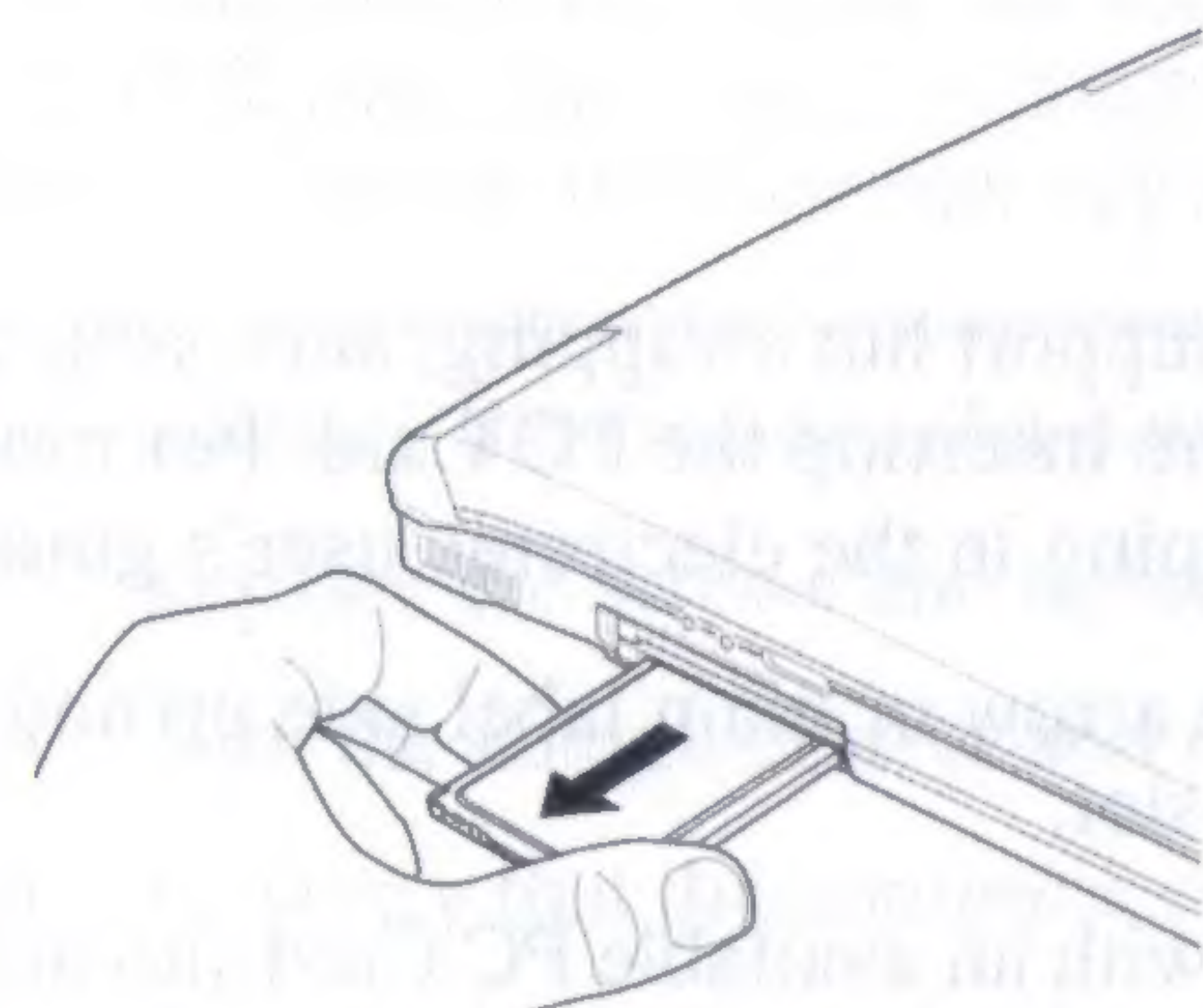
Removing PC Cards

- 1 Double-click the **Safely Remove Hardware** icon on the taskbar.
 - 2 Click **Safely remove xxxx**, where xxxx is the identifier for your PC Card.
- The operating system advises you that you may safely remove the card.



Ejecting a PC Card

- 3 Remove the PC Card and store it properly.



Removing a PC card

Hot swapping

With PC Cards, you can replace one PC Card with another while the computer is on. This is called "hot swapping."

Although you can insert a PC Card at any time, remember not to remove a card while it is in use. Otherwise, you could lose valuable information. For example:

- ❖ Do not remove a hard disk card while the system is accessing it.
- ❖ Do not remove a network card while you are connected to a network.
- ❖ Do not remove a SCSI card while any of the SCSI devices connected to it are operating.

Before removing a PC Card, shut it down by clicking the **Safely Remove Hardware** icon on the taskbar. Once the PC Card has stopped, you can safely remove it.

Learning the basics

Computing tips

- ❖ Save your work frequently.

Your work stays in the computer's temporary memory until you save it to the disk. You will lose all unsaved work, if, for example, a system error occurs and you must restart your computer, or your battery runs out of charge while you are working. Your computer can be configured to warn you when the battery is running low.



HINT: Some programs have an automatic save feature that you can turn on. This feature saves your file to the hard disk at preset intervals. See your software documentation for details.

- ❖ Back up your files to diskettes (or other removable storage media) on a regular basis. Label the backup copies clearly and store them in a safe place.
- ❖ Scan all new files for viruses.
- ❖ Never turn off the computer if a drive indicator light indicates a drive is active.



NOTE: The Windows® XP operating system records information, such as your desktop setup, during its shutdown procedure. If you don't let the operating system shut down normally, details such as new icon positions may be lost.

Using the TouchPad®

The TouchPad, the small, smooth square cutout located in front of the keyboard, is sensitive to touch and enables you to move the cursor with the stroke of a finger. Simply move your finger on the TouchPad in the direction you'd like to move the cursor:

- ❖ To move the cursor to the top of the page, push your finger forward on the TouchPad.
- ❖ To move the cursor to the bottom of the page, drag your finger toward yourself.
- ❖ To move the cursor to the right side of the page, slide your finger across the TouchPad from left to right.
- ❖ To move it to the left side, slide your finger from right to left.



NOTE: Because the TouchPad is much smaller than the display screen, moving your cursor across the screen often means having to move your finger several times across the TouchPad in the preferred direction.

Once you've positioned your cursor, you can either click it into place by double-tapping the TouchPad or clicking the control buttons. Refer to the electronic user guide for more information using the TouchPad.

Primary and secondary control buttons

When you want to click or choose an item, use the TouchPad to move the pointer/cursor to the item. Once the pointer/cursor is positioned, you can click it into place by either double-tapping the TouchPad or clicking the control buttons.

The control buttons are adjacent to the TouchPad and are used like the buttons on a mouse. The primary control button is the left one and corresponds to the left mouse button. To double-click, press the primary button twice in rapid succession.

The function of the secondary button depends on the program you are using. It usually corresponds to the right mouse button. Check your program's documentation to find whether it uses the secondary mouse button.

Playing a CD or DVD

Your computer has a DVD-ROM or DVD-ROM/CD-RW drive that can read both DVD-ROM and CD-ROM discs.

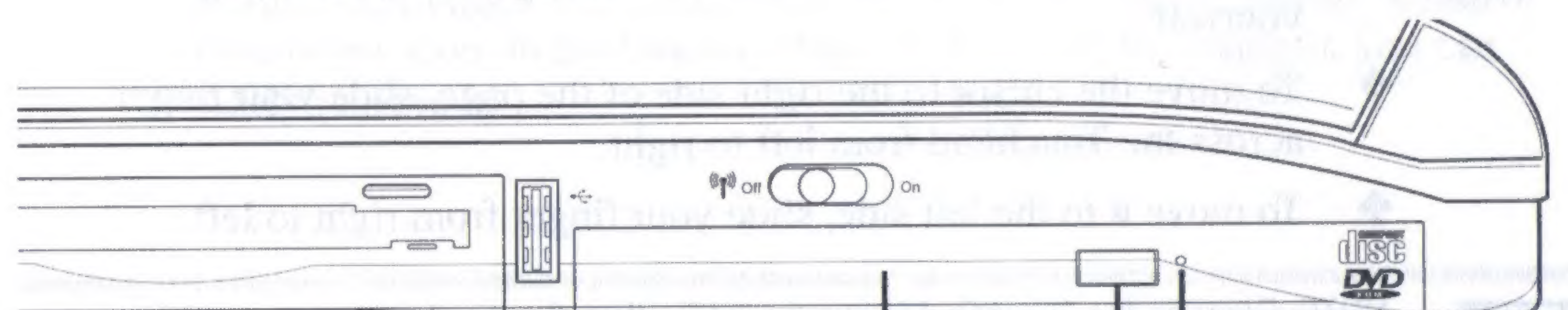
Digital versatile discs (DVDs) provide a significant increase in data storage and support features that are not available on any other video platform. These features include wide-screen movies, multiple language tracks, digital surround sound, multiple camera angles, and interactive menus. The computer can play high-resolution video at up to 30 frames per second.



NOTE: For optimum DVD performance, it is recommended that you play DVDs while running on AC power rather than battery power.

You use CD-ROMs to load and run software, and to access reference material such as catalogs, as well as listen to music.

A special feature allows you to play audio CDs even when the computer is turned off. For more information, see "CD/DVD control buttons" in the electronic user's guide.



DVD-ROM or DVD-ROM/CD-RW drive
Manual eject button
Eject button

Use the eject button to release the disc tray. This button requires power to operate.



CAUTION: Never press the eject button or turn off the computer while the activity light is glowing. Doing so could damage the disc or the drive.

The manual eject button allows you to manually open the disc tray when power to the computer and the drive is off.



CAUTION: Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer and damage it. Instead, use a slim object such as a straightened paper clip.



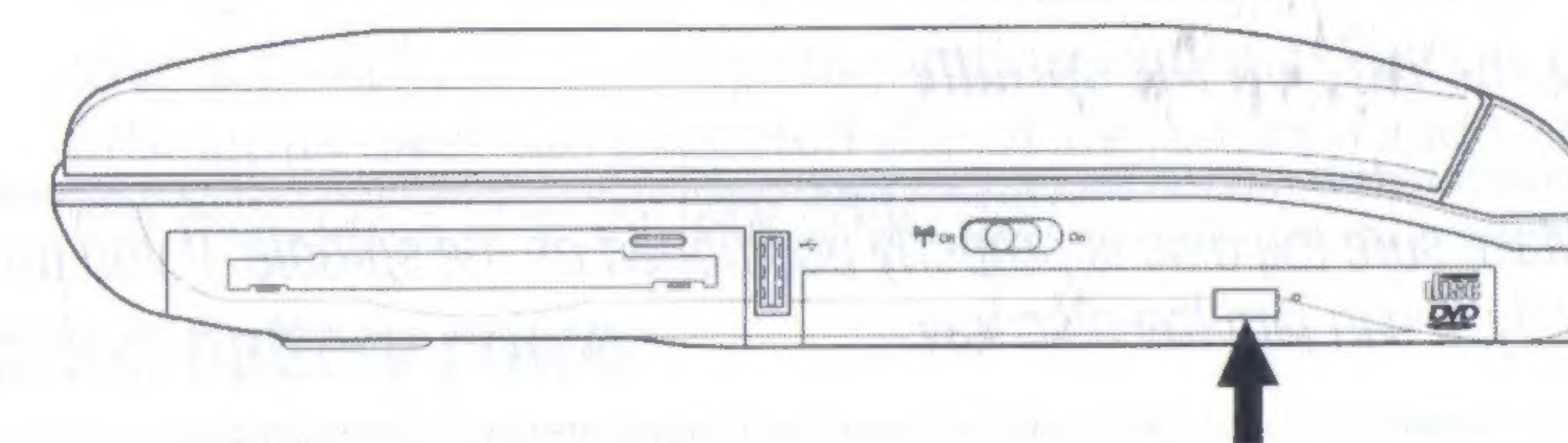
HINT: When the computer is off and the DVD-ROM or DVD-ROM/CD-RW drive is on, press the stop/eject control button to eject a disc.

Inserting a disc



WARNING: Before playing an audio CD or a DVD, turn the volume down. Playing the disc at maximum volume could damage your ears. To turn the volume down, use the volume control dial or access the Volume Control program (click **Start, All Programs, Accessories, Entertainment, Volume Control**).

- 1 If the computer is turned on, press the eject button on the DVD-ROM or DVD-ROM/CD-RW drive.



Pressing the eject button

The disc tray partially opens.



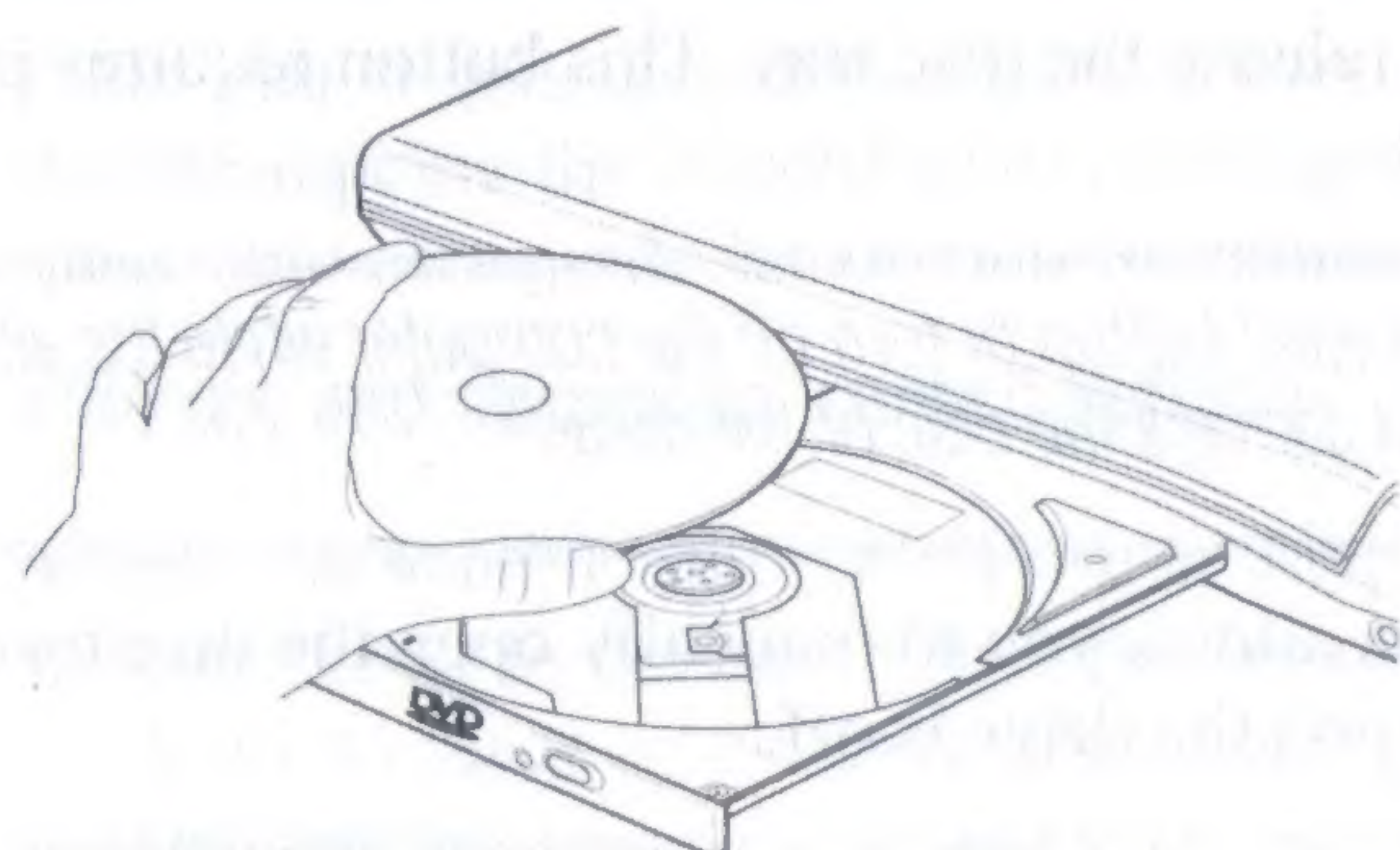
CAUTION: To avoid damaging a disc or losing data, check that the disk activity light is off before opening the disc tray.

- 2 Grasp the disc tray and pull it fully open.
- 3 Hold the disc by its edges and check that it is clean and free of dust.



CAUTION: Handle discs carefully. Avoid touching the surface of the disc. Grasp it by its center hole and edge. If you handle the disc incorrectly, you could lose data.

- 4 Carefully place the disc in the empty tray with its label facing up.

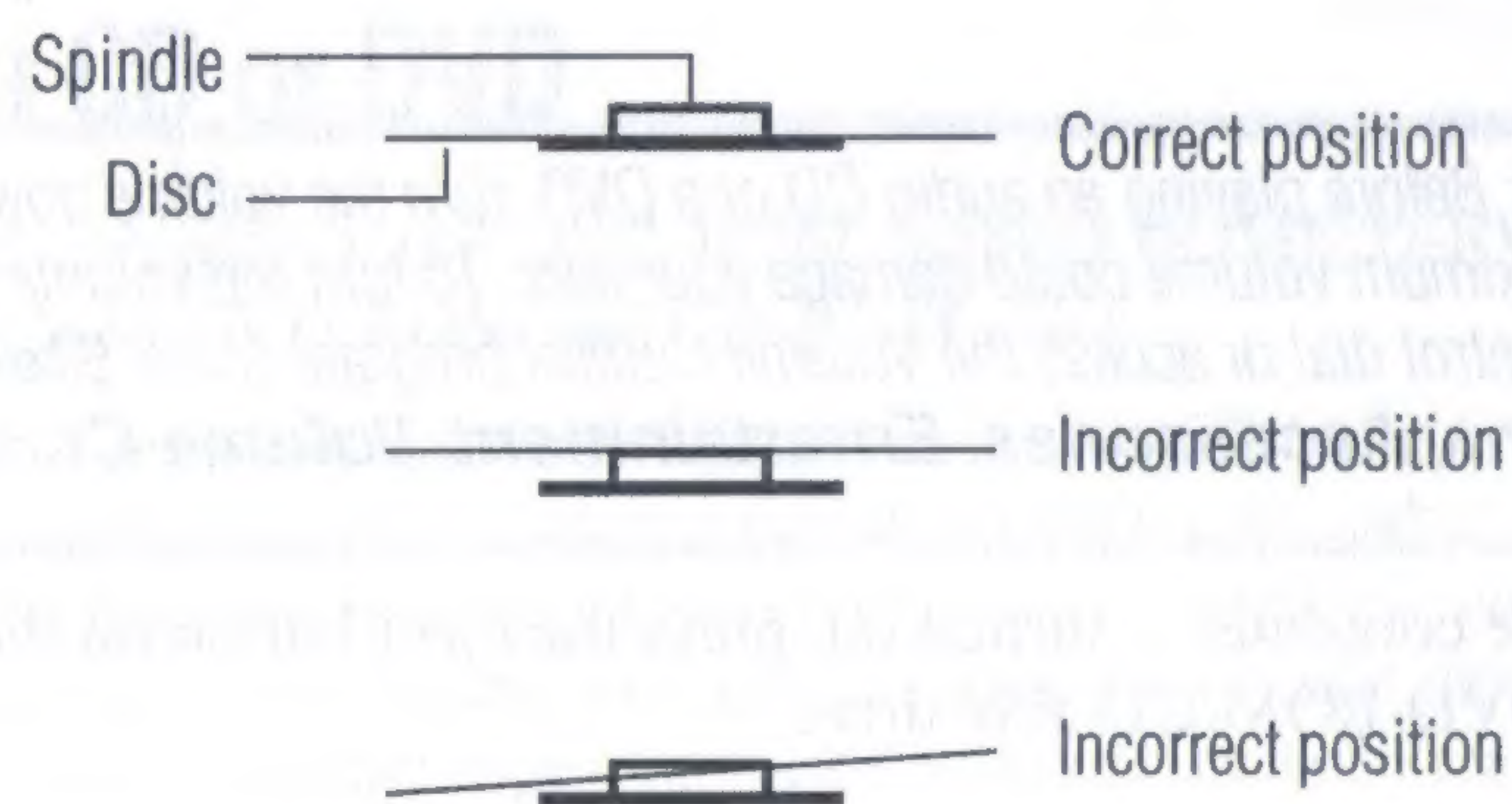


Inserting a disc



CAUTION: Be careful not to touch the drive's lens (located underneath the drive's spindle) or the area around it. Doing so could cause the drive to malfunction.

- 5 Gently press the center of the disc onto the spindle until it locks into place.



Positioning the disc on the spindle



CAUTION: Make sure the disc is properly positioned on the spindle. If you position the disc incorrectly, it can jam the disc tray.

- 6 Close the disc tray by pressing gently on the center of the tray until it clicks, indicating that it is locked.

Removing a disc with the computer on



CAUTION: Never press the eject button while the computer is accessing the drive. Wait for the disk activity light on the system indicator panel to turn off before opening the disc tray.

- 1 Locate and press the eject button.
The disc tray partially opens.
- 2 Grasp the sides of the disc tray and pull it fully open.
- 3 Remove the disc from the disc tray and place it in its protective cover.



CAUTION: If the disc is spinning when you open the disc tray, wait for the disc to stop before removing it.

- 4 Close the disc tray by pressing gently on the center of the tray until it clicks indicating that it is locked.

Moving the computer

Before moving your computer, even across the room, make sure all disk activity has ended (the drive-in-use lights stop glowing) and all external peripheral cables are disconnected.



CAUTION: Never pick up the computer by its display panel or by the back (where the ports are located).

Mobile computing

Running the computer on battery power

The computer contains a removable lithium ion (Li-ion) high-capacity battery that provides power when you are away from an AC outlet. You can recharge it many times.

To ensure that the battery pack maintains its maximum capacity, operate the computer on battery power at least once a month until the battery pack is fully discharged. Refer to Maximizing battery life in this guide for procedures. If the computer is continuously operated on AC power, either through an AC adaptor or a docking station for an extended period, more than a month, the battery may fail to retain a charge. It may not function efficiently over the expected life of the battery and the Battery LED may not indicate a low-battery condition.

Monitoring battery power



The battery light indicates the main battery's current charge. It:

- ❖ Glows amber while the battery is being charged.
- ❖ Glows green when the battery is fully charged.
- ❖ Is not lit when the computer is not connected to an external power source.



NOTE: Battery life and charge time may vary depending upon power management settings, applications and features used.



HINT: Be careful not to confuse the battery light (⏻) with the on/off light (⏻). When the on/off light flashes amber, it indicates that the system is suspended (using Windows® XP Standby command).

Setting battery alarms

Your computer can be configured to warn you when the battery is running low. For more information, see "Setting battery alarms" in the electronic user's guide.

Changing the main battery

When your battery power is running low, you have two options: connect the computer to an AC power source or install a charged battery.

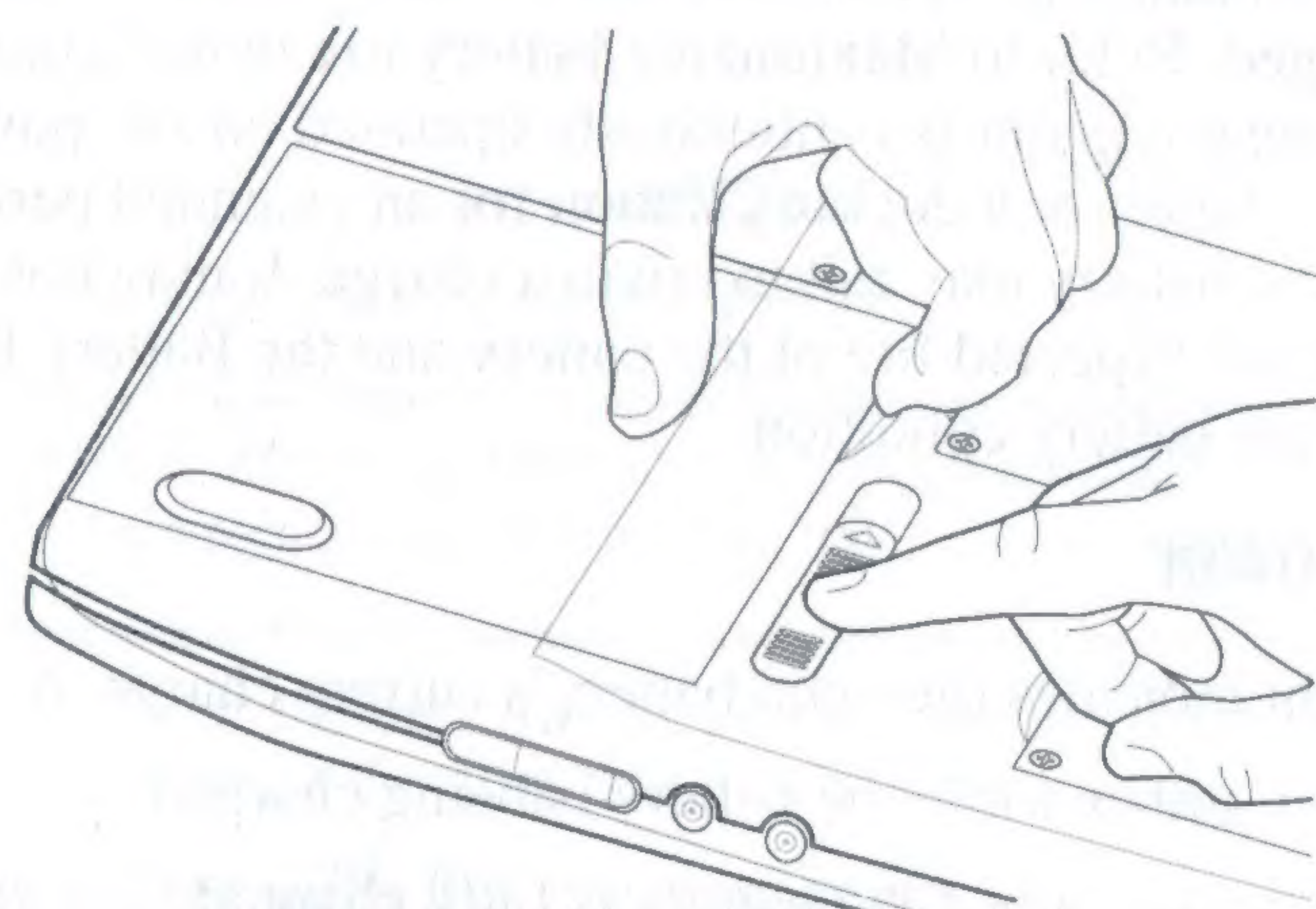


NOTE: If your battery discharges fully, your information will be lost. Be sure to save your work often.



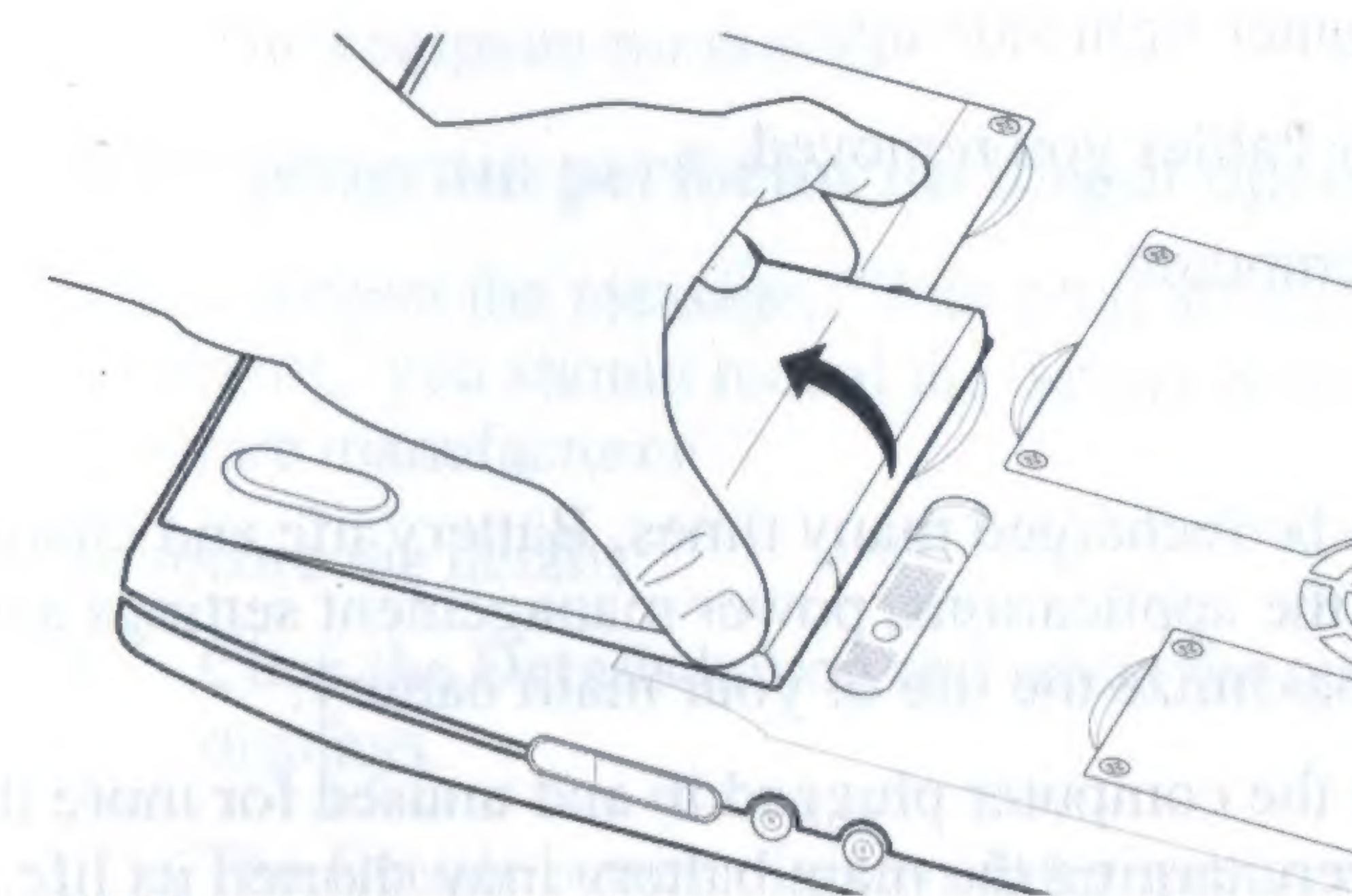
CAUTION: When handling a battery, be careful not to drop it or short-circuit its terminals.

- 1 Save your work.
- 2 Turn off the computer or place it in Hibernation mode according to the instructions in Using Hibernation in the electronic user's guide.
- 3 Remove all cables connected to the computer.
- 4 Close the display panel and turn the computer upside down with the front of the computer facing you.



Sliding the battery release latch

- 5 Carefully slide the battery release latch toward the center of the computer.



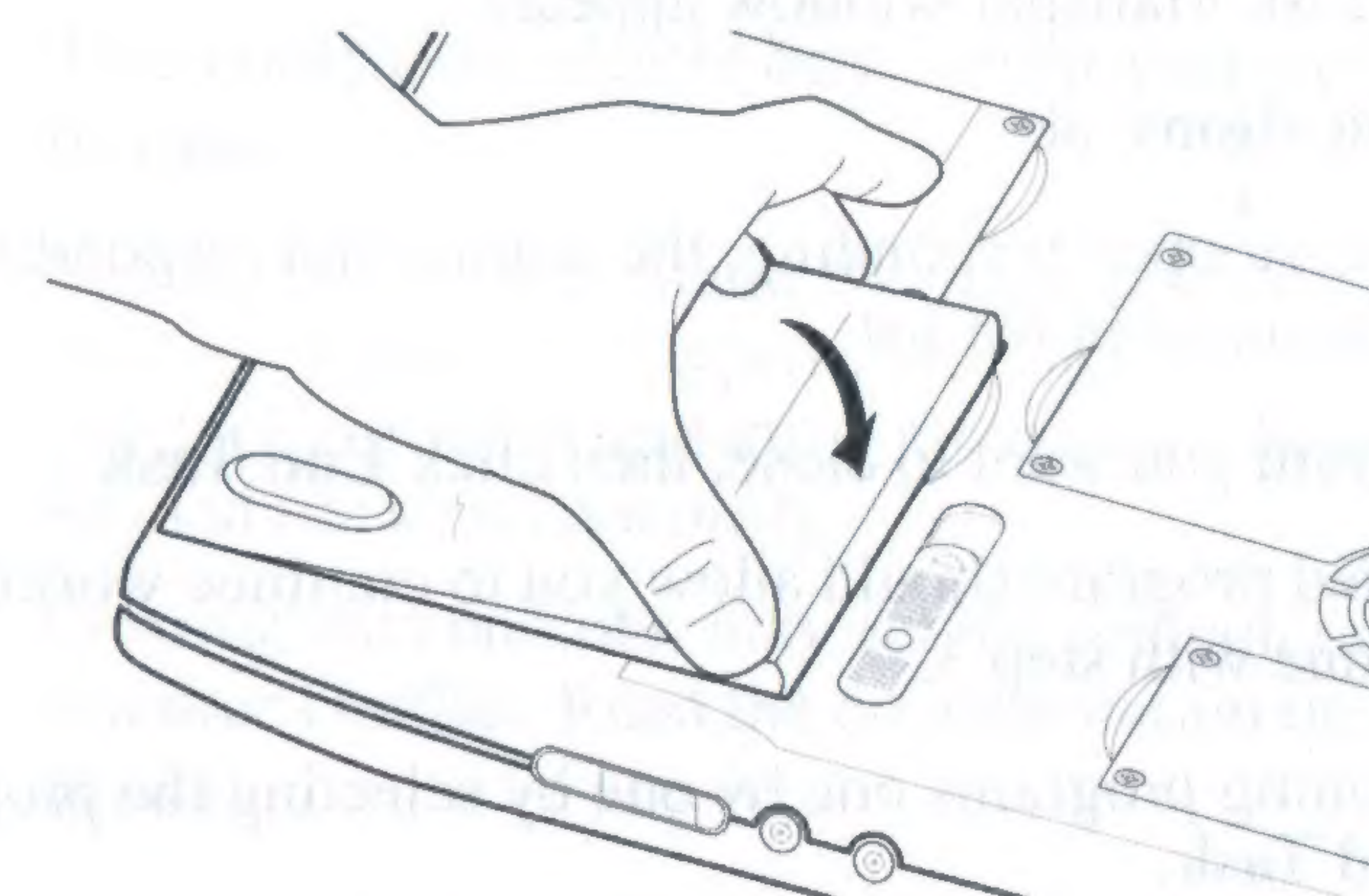
Sliding the battery out

- 6 While holding the battery release latch toward the center of the computer, use the adjacent half-oval finger slot nearby to gently pull the battery cover free.



WARNING: If the battery is leaking or its case is cracked, put on protective gloves to handle it, and discard it immediately following the advice in Disposing of used batteries safely in the electronic user's guide.

- 7 Wipe the battery terminals of the charged battery with a clean cloth to ensure a good connection.
- 8 Place the charged battery into the battery cover so that the label is against the inside of the battery cover and the side terminals face away from the battery release latch.
- 9 Press the battery cover latches upward.
- 10 With the battery release latch pulled toward you, insert the battery from the back end first at a slight angle so that end fits evenly with the surrounding casing. If the back end has been correctly inserted, you will be able to gently press the front end into place until it snaps shut. If the front end resists, don't force it. Simply start over.



Inserting the battery



CAUTION: Failure to lock the battery cover can result in the battery falling out of the computer case.

- 11 Turn the computer right side up.
- 12 Reconnect any cables you removed.
- 13 Turn on the computer.

Maximizing battery life

A main battery can be recharged many times. Battery life and charge time vary depending on the applications, power management settings and features used. To maximize the life of your main battery:

- ❖ Avoid leaving the computer plugged in and unused for more than a few hours. Overcharging the main battery may shorten its life.
- ❖ If you are not going to use the computer for a long time, remove the battery.
- ❖ Alternate between batteries if you have a spare.
- ❖ Make sure your computer is turned off or in Hibernation mode when you are replacing the battery.
- ❖ Store spare batteries in a cool dry place out of direct sunlight.

If something goes wrong

Problems that are easy to fix

Your program stops responding.

If you are working with a program that suddenly freezes all operations, chances are the program has stopped responding. You can exit the failed program without shutting down the operating system or closing other programs.

To close a program that has stopped responding:

- 1 Press Ctrl, Alt, and Del simultaneously (once).
The Windows Task Manager window appears.
- 2 Click the **Applications** tab.
If a program has stopped responding, the words "not responding" appear beside its name in the list.
- 3 Select the program you want to close, then click **End Task**.
Closing the failed program should allow you to continue working. If it does not, continue with step 3.
- 4 Close the remaining programs one by one by selecting the program name, then **End Task**.
- 5 Click **Start, Turn off computer**.
- 6 The Turn off computer window appears.
- 7 Click **Turn off**.

The computer turns off.

Your program performs an illegal operation.

If you receive the message, "Your program has performed an illegal operation," you should record the details of the message and consult the software manufacturer.

To record the details:

- 1 Click the **Details** button and select the text the operating system displays.
The Details button displays information that the software manufacturer needs to help you solve your problem.
- 2 Press Ctrl and C simultaneously to copy the text to the clipboard.
- 3 Open Notepad (click **Start**, point to **All Programs**, then point to **Accessories** and click **Notepad**).
- 4 Press Ctrl and V simultaneously to paste the details into Notepad.
- 5 Add a paragraph break and type some notes describing what you were doing when you received the message.

Save the file and refer to it when you contact the software manufacturer.

Problems when you turn on the computer

These problems may occur when you turn on the power.

The computer will not start.

Make sure you attached the AC adapter and power cable properly or installed a charged battery.

Press and hold down the power button for a few seconds.

If you are using the AC adapter, check that the wall outlet is working by plugging in another device, such as a lamp.

The computer starts but, when you press a key, nothing happens.

You are probably in Stand By mode and have a software or resource conflict. When this happens, turning the power on returns you to the problem instead of restarting the system. To clear the condition, press Ctrl, Alt, and Del simultaneously.

Clearing the condition may get the computer running, but it won't solve a resource conflict. Read the documentation that came with the conflicting device.

The keyboard produces unexpected characters.

A keypad overlay may be on. If the numeric keypad or cursor control light is on, press Fn and F10 simultaneously to turn off the cursor control light or press Fn and F11 simultaneously to turn off the numeric keypad light.

If the problem occurs when both the keypad overlays are off, make sure the software you are using is not remapping the keyboard. Refer to the software's documentation and check that the program does not assign different meanings to any of the keys.

Display problems

Here are some typical display problems and their solutions:

The display is blank.

Display Auto Off may be in effect. Press any key to activate the screen.

You may have activated the instant password feature by pressing Fn and F1 simultaneously. If you have registered a password, press the Enter key, type the password and press Enter. If no password is registered, press Enter. The screen reactivates and allows you to continue working.

If you are using the built-in screen, make sure the display priority is not set for an external monitor. To do this, press Fn and F5 simultaneously (once). If this does not correct the problem, press Fn and F5 simultaneously again to return the display priority to its previous setting.

PC Card problems

PC Card checklist

- ❖ Make sure the card is inserted properly into the slot.
- ❖ Make sure all cables are securely connected.
- ❖ Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is available, try the card in that machine. If the card malfunctions again, it may be defective.

Resolving PC Card problems

The slots appear dead and cards that worked no longer do.

Check the PC Card status:

- 1 Click **Start**.
- 2 Click **My Computer** icon with the secondary button, then click **Properties**.

The System Properties dialog box appears.

- 3 Click the **Hardware** tab.
- 4 Click the **Device Manager** button.
- 5 Double-click the **PCMCIA adapter**.
- 6 Double-click the appropriate PC Card.

The operating system displays your PC Card's Properties dialog box, which contains information about your PC Card configuration and status.

The computer stops working (hangs) when you insert a PC Card.

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address.

Since all PC Cards share the same socket, each card is not required to have its own address.

If you need further assistance

If you have followed the recommendations in this chapter and are still having problems, you may need additional technical assistance.

Before you call

Since some problems may be related to the operating system or the program you are using, it is important to investigate other sources of assistance first.

Try the following before contacting Toshiba:

- ❖ Review the troubleshooting information in your operating system documentation.
- ❖ If the problem occurs while you are running a program, consult the program's documentation for troubleshooting suggestions. Contact the software company's technical support group for their assistance.
- ❖ Consult the dealer from whom you purchased your computer and/or program. Your dealer is your best source for current information.

For the number of a Toshiba dealer near you in the United States, call: (800) 457-7777.

Contacting Toshiba

If you still need help and suspect that the problem is hardware-related, Toshiba offers a variety of resources to help you.

- 1 Start with accessing Toshiba on the Internet using any Internet browser by typing pcsupport.toshiba.com
- 2 Next, try one of Toshiba's online services. The Toshiba Forum can be accessed through CompuServe® by typing: go toshiba.

Toshiba voice contact

Before calling Toshiba, make sure you have:

- ❖ Your computer's serial number.
- ❖ The computer and any optional devices related to the problem.
- ❖ Backup copies of your operating system and all other preloaded software on diskettes or CD-ROM.
- ❖ Name and version of the program involved in the problem along with its installation diskettes or CD-ROM.
- ❖ Information about what you were doing when the problem occurred.
- ❖ Exact error messages and when they occurred.

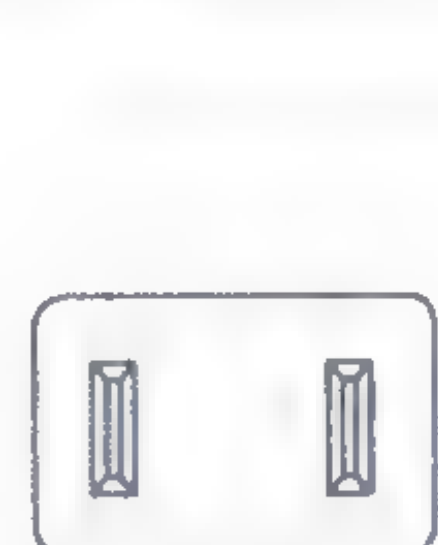
For technical support, call the Toshiba InTouch Center:

Within the United States at (800) 457-7777

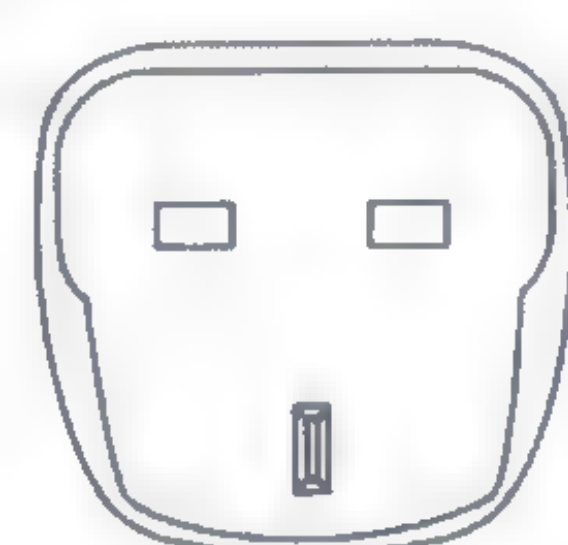
Outside the United States at (949) 859-4273

Power cable connectors

Your notebook computer features a universal power supply you can use worldwide. This appendix shows the shapes of the typical AC power cable connectors for various parts of the world.



USA and Canada
(UL and CSA
approved)



United Kingdom
(BS approved)



Australia
(AS approved)



Europe
(VDA and
NEMKO approved)

Features and specifications

This section lists the computer's features.



NOTE: The information in the specifications section of this Resource Guide reflects the most recent information and updates, and may differ slightly from features and/or functionality described in the electronic user's guide installed on your computer.

Technology and processor

Microprocessor	Intel® Pentium® 4 processor with 1.6 GHz
Processor L1 cache	12 KB write-back (8 KB for data) level one cache
Processor L2 cache	256 KB on-chip write-back level two cache
Front side bus	400 MHz FSB provides optimum speed for memory access
PCI bus	High performance 32-bit PCI system bus supports HDD, PC Card slots
Memory	3.3-volt 64-bit bus, PC133 SDRAM SODIMM, delivers high performance, 2 SODIMM memory slots, Memory modules available: 128 MB, 256 MB Maximum capacity: 512 MB
Graphics	ATI Mobility™ Radeon™

Power

Computer	90 watt autosensing external AC power adapter; 100-240 VAC input voltage, 50/60 Hz frequency, 19V output voltage
Main battery	Removable, rechargeable lithium ion (Li-ion) high-capacity battery (12 cell) Battery life is up to 3.5 hours in normal mode Battery recharge time is several hours Battery life and charge time may vary depending upon power management settings, applications and features used
RTC battery	NiMH battery provides power for the internal real-time clock and calendar
Intelligent power supply	Detects low battery charge and displays the battery charge remaining or time remaining

Storage capacity

Hard disk	2.5-inch removable drive and controller provides non-volatile storage for 15 GB, 20 GB, 30 GB, or 40 GB hard drive (GB means 1 billion bytes)
3.5-inch diskette drive	Internal FDD drive accommodates 3.5" 1.44 MB, high density (2HDD) diskettes

Ports

S-Video	S-video allows you to play DVD audio and video on a projector or TV that accepts audio/video inputs.
DC-IN jack	Lets you connect the computer to AC power, using the AC adapter and power cable
Headphone jack	Use the 3.5 mm headphone jack to connect stereo headphones or other audio output devices. Connecting headphones or other devices to this jack automatically disables the internal speakers (Dolby® 3D digital sound is also supported)
Microphone jack	3.5 mm stereo jack lets you connect an external monaural microphone or other audio input device
RGB (monitor) port	15-pin, analog VGA port lets you connect an external SVGA monitor (color or monochrome)
Modem port	The modem port lets you connect the internal modem directly to a telephone line via an RJ11 connection
USB ports	Support USB peripherals
LAN port	The LAN port lets you connect to a LAN via an RJ45 connection
Parallel port	ECP-compatible parallel port that provides a Centronics-compatible connection to a printer or other parallel output or bi-directional device. It gives increased performance when you're using an ECP-compatible parallel device

Standard hardware

Memory	The system comes with 256 MB of RAM, expandable to 512 MB
Display options	14.1-inch and 15.0-inch (measured diagonally) active matrix Thin Film Transistor (TFT) color LCD displays up to 16 million colors at 1600 x 1200 (virtual display or UXGA), 1400 x 1040 (virtual display on systems with XGA or SXGA+ resolution), 1280 x 1024 (virtual display on systems with XGA resolution), 1024 x 768, 800 x 600, 640 x 480

Communication	Integrated V.90 56K* modem *Due to FCC limitations, speeds of 53 kbps are the maximum permissible rates during downloads. Actual data transmission speeds will vary depending on on-line conditions.
Networking	Integrated Intel 10/100 Base-TX Ethernet LAN adapter with RJ45 port
Keyboard	Enhanced 85-key keyboard includes embedded numeric and cursor control overlays, dedicated cursor control keys, and Windows® special keys
Pointing device	TouchPad® pointing device provides the complete function of a mouse or other pointing device from in front of the keyboard
PC card slots	Two stacked PC Card slots let you install one Type III or up to two Type II PC Cards Minimum slot thickness: 5 mm
Sound controller	Crystal CS4299-A, 16-bit stereo, Sound Blaster® Pro and FM synthesis support; built-in stereo speakers; full duplex sound, 64-channel wavetable music synthesis; Direct-Sound® Direct3D® Sound, DirectMusic®

Optional accessories and devices

This section lists factory-installed options that are only available at the time of order.

Wireless communication	The computer may also come with an optional integrated Wi-Fi™ (802.11b) wireless LAN mini-PCI communication module providing wireless LAN functions at up to 11 Mbps
CD-ROM drive	24x CD-ROM Compatibility: CD-ROM, CD-R (read only), CD-RW (read only)
DVD-ROM drive	8x DVD Compatibility: CD-ROM, CD-R (read only), CD-RW (read only), DVD-ROM, DVD-R (read only)
DVD-ROM/CD-RW drive	24x CD-ROM, 8x DVD-ROM, 8x CD-R, 8x CD-RW Compatibility: CD-ROM, CD-R, CD-RW, DVD-ROM, DVD-R (Read only)
Hard disk drive	2.5-inch drive provides non-volatile storage for 15 GB, 20 GB, 30 GB, or 40 GB (GB means 1 billion bytes)
Battery	Rechargeable lithium ion (Li-ion) battery module
Additional battery packs	Use as spare or replacement packs to extend the time you can operate the computer away from a live electrical outlet

Cable PORT-Noteworthy® Computer Lock cable to deter computer theft

Physical dimensions

This section lists the computer's specifications

Weight 14.1" model: 7.99 lbs
15.0" model: 8.39 lbs
Actual weight will vary slightly depending on configuration and installed modules

Size width x depth x height
13.3 x 11.2 x 1.7/2.1 inches (dimensions may vary)

Environmental conditions

	Operating	Non-operating
Temperature	5° to 35° C (41° to 95° F)	-20° to 65° C (-4° to 149° F)
Relative humidity	20% to 80% non-condensing	10% to 95% non-condensing
Altitude (relative to sea level)	-60 to 3,000 m (-197 ft. to 9,842 ft.)	-60 to 10,000 m (-197 ft. to 32,808 ft.)
Shock	7G	60G
Vibration	0.2G	1G

Regulatory information

Model: Satellite® 1905 Series

Compact Disk-ReWritable

The computer system you purchased may include a Compact Disk-ReWritable (CD-RW), one of the most advanced storage technologies available. As with any new technology, you must read and follow all set-up and usage instructions in the applicable user guides and/or manuals enclosed. If you fail to do so, this product may not function properly and you may lose data or suffer other damage. **TOSHIBA AMERICA INFORMATION SYSTEMS ("TOSHIBA"), ITS AFFILIATES AND SUPPLIERS DO NOT WARRANT THAT OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE. YOU AGREE THAT TOSHIBA, ITS AFFILIATES AND SUPPLIERS SHALL HAVE NO RESPONSIBILITY FOR DAMAGE TO OR LOSS OF ANY BUSINESS, PROFITS, PROGRAMS, DATA OR REMOVABLE STORAGE MEDIA ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.**

Protection of Stored Data

For your important data, please make periodic back-up copies of all the data stored on the hard disk or other storage devices as a precaution against possible failures, alteration, or loss of the data. **IF YOUR DATA IS ALTERED OR LOST DUE TO ANY TROUBLE, FAILURE OR MALFUNCTION OF THE HARD DISK DRIVE OR OTHER STORAGE DEVICES AND THE DATA CANNOT BE RECOVERED, TOSHIBA SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS OF DATA, OR ANY OTHER DAMAGE RESULTING THEREFROM. WHEN COPYING OR TRANSFERRING YOUR DATA, PLEASE BE SURE TO CONFIRM WHETHER THE DATA HAS BEEN SUCCESSFULLY COPIED OR TRANSFERRED. TOSHIBA DISCLAIMS ANY LIABILITY FOR THE FAILURE TO COPY OR TRANSFER THE DATA CORRECTLY.**

Critical Applications

The computer you have purchased is not designed for any "critical applications." "Critical applications" means life support systems, medical applications, connections to implanted medical devices, commercial transportation, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage. **ACCORDINGLY, TOSHIBA, ITS AFFILIATES AND SUPPLIERS DISCLAIM ANY AND ALL LIABILITY ARISING OUT OF THE USE OF THE COMPUTER PRODUCTS IN ANY CRITICAL APPLICATIONS. IF YOU USE THE COMPUTER PRODUCTS IN A CRITICAL APPLICATION, YOU, AND NOT TOSHIBA, ASSUME FULL RESPONSIBILITY FOR SUCH USE.**

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ❖ Reorient or relocate the receiving antenna.
- ❖ Increase the separation between the equipment and receiver.
- ❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- ❖ Consult the dealer or an experienced radio/TV technician for help.



NOTE: Only peripherals complying with the FCC Class B limits may be attached to this computer. Operation with non-compliant peripherals or peripherals not recommended by Toshiba is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's video jack, USB ports and microphone jack. Changes or modifications made to this equipment not expressly approved by Toshiba or parties authorized by Toshiba could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- ❖ This device may not cause harmful interference.
- ❖ This device must accept any interference received, including interference that may cause undesired operation.

Contact:

Toshiba America Information Systems, Inc.
9740 Irvine Blvd.
Irvine, CA 92618-1697
(949) 583-3000

Industry Canada Requirement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC Requirements

The following information is pursuant to FCC CFR 47, Part 68 and refers to internal modems.

Installation

When you are ready to install or use the modem, call your local telephone company and give them the following information:

- ❖ The telephone number of the line to which you will connect the modem.
- ❖ The FCC registration number of the modem.
- ❖ The ringer equivalence number (REN) of the modem, which is 0.6B.

The modem connects to the telephone line by means of a standard jack called the USOC RJ11C.

Type of Service

Your modem is designed to be used on standard-device telephone lines. Connection to telephone company-provided coin service (central office implemented systems) is prohibited. Connection to party lines service is subject to State tariffs. If you have any questions about your telephone line, such as how many pieces of equipment you can connect to it, the telephone company will provide this information upon request.

Telephone Company Procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If Problems Arise

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible.

When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC. In the event repairs are ever needed on your modem, they should be performed by Toshiba Corporation, Toshiba America Information Systems, Inc. or an authorized representative of Toshiba.

Disconnection

If you should ever decide to permanently disconnect your modem from its present line, please call the telephone company and let them know of this change.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity or individual sending the message and the telephone number of the sending machine or such business, other entity or individual.

In order to program this information into your fax modem, you should complete the setup for your fax software before sending a message.

Instructions for IC CS-03 certified equipment

- 1 **NOTICE:** The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

- 2 The user manual of analog equipment must contain the equipment's Ringer Equivalence Number (REN) and an explanation notice similar to the following:

The Ringer Equivalence Number (REN) of this device can be found on the label affixed to your computer.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

- 3 The standard connecting arrangement (telephone jack type) for this equipment is jack type(s): USOC RJ11C.

Wireless Interoperability

The Toshiba Wireless LAN Mini PCI Card products are designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) radio technology, and is compliant to:

- ❖ The IEEE 802.11 Standard on Wireless LANs (Revision B), as defined and approved by the Institute of Electrical and Electronics Engineers.
- ❖ The Wireless Fidelity (Wi-Fi™) certification as defined by the WECA Wireless Ethernet Compatibility Alliance.

Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones. Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, Toshiba believes Wireless LAN is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Wireless LAN may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- ❖ Using the Wireless LAN equipment on board of airplanes, or
- ❖ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g., airports), you are encouraged to ask for authorization to use the Wireless LAN device prior to turning on the equipment.

Regulatory Information

The Toshiba Wireless LAN Mini PCI Card must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This device complies with the following radio frequency and safety standards.

Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

USA-Federal Communications Commission (FCC)

This device complies with Part 15 of FCC Rules. Operation of the devices in a Wireless LAN System is subject to the following two conditions:

- ❖ This device may not cause harmful interference.
- ❖ This device must accept any interference that may cause undesired operation.

Caution: Exposure to Radio Frequency Radiation

The radiated output power of the Toshiba Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, the Toshiba Wireless LAN Mini PCI Card shall be used in such a manner that the potential for human contact during normal operation is minimized. When using this device in combination with Wireless LAN Outdoor Antenna products, a certain separation distance between antenna and nearby persons has to be kept to ensure RF exposure compliance. The distance between the antennas and the user should not be less than 20.0 cm.

Refer to the Regulatory Statements as identified in the documentation that comes with those products for additional information.

The Toshiba Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits.

Nevertheless, it is advised to use the Toshiba Wireless LAN Mini PCI Card in such a manner that human contact during normal operation is minimized.

Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- ❖ Reorient or relocate the receiving antenna.
- ❖ Increase the distance between the equipment and the receiver.
- ❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- ❖ Consult the dealer or an experienced radio/TV technician for help.

Toshiba is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this Toshiba Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified by Toshiba.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Approved Countries/Regions for use

This equipment is approved to the radio standard by the countries/regions in Fig.1.

Australia	Austria	Belgium	Canada	Denmark
Finland	France	Germany	Greece	Iceland
Ireland	Italy	Japan	Luxembourg	Mexico
Netherlands	New Zealand	Norway	Poland	Portugal
Spain	Sweden	Switzerland	UK	USA

Caution: Do not use this equipment except in the countries/regions in Fig.1.

DVD-ROM and DVD-ROM/CD-RW Safety Instructions

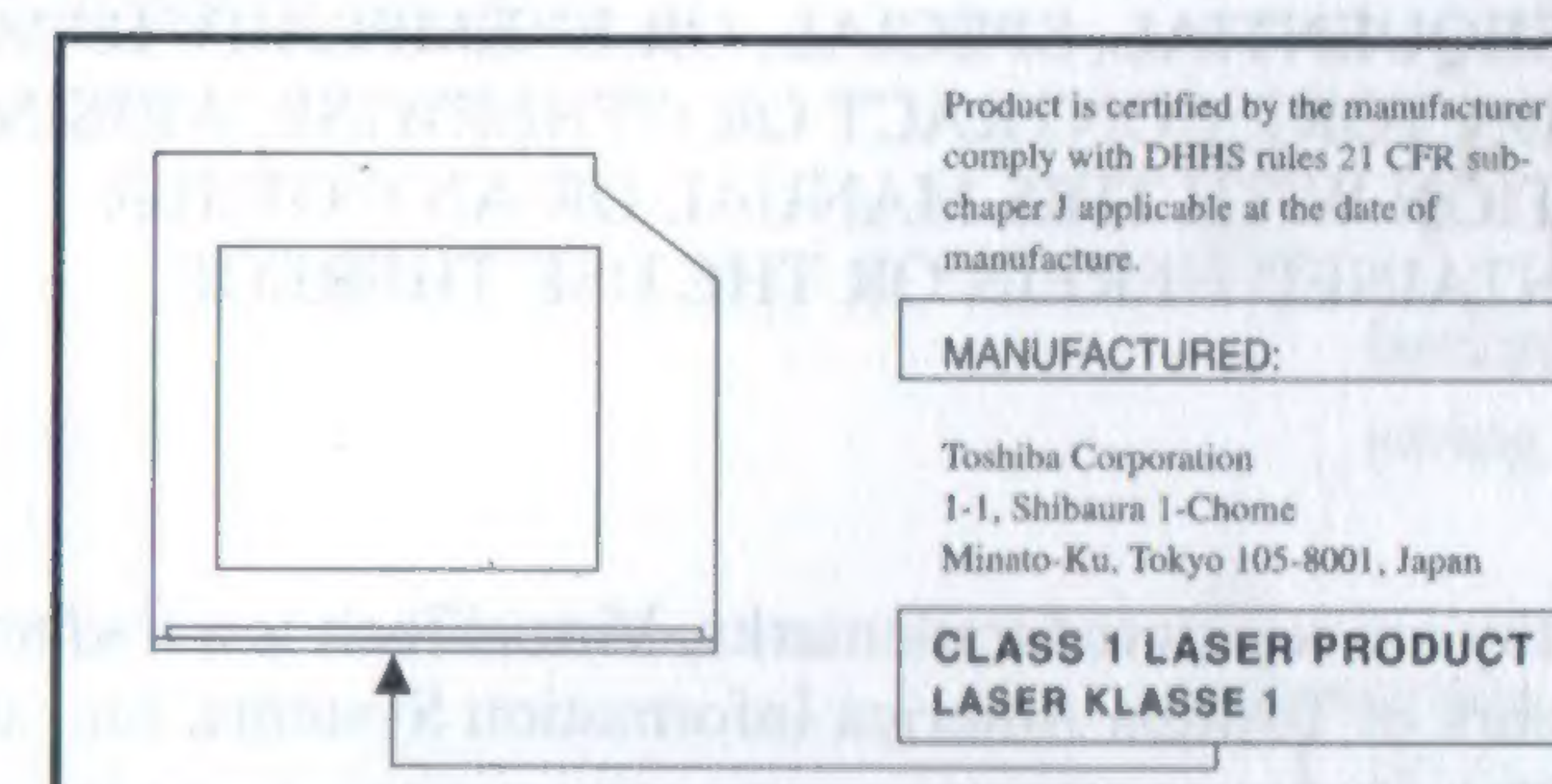
The DVD-ROM and DVD-ROM/CD-RW drives employ a laser system. To ensure proper use of this product, please read this instruction manual carefully and retain for future reference. Should the unit ever require maintenance, contact an authorized service location.

Use of controls, adjustments or the performance of procedures other than those specified may result in hazardous radiation exposure.

To prevent direct exposure to the laser beam, do not try to open the enclosure.

Location of the required label

(Sample shown below. (Location of the label and manufacturing information may vary.)



CAUTION: This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT." To use this model properly, read the instruction manual carefully and keep it for your future reference. In case of any trouble with this model, please contact your nearest "AUTHORIZED service station." To prevent direct exposure to the laser beam, do not try to open the enclosure.

CLASS 1 LASER PRODUCT
LASER KLASSE 1

Use of controls or adjustments or performance of procedures other than those specified in the owner's manual may result in hazardous radiation exposure.

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Computer Disposal Information

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government or the Electronic Industries Alliance at www.eiae.org.

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